

Food Prices: Information on Trends, Factors, and Federal Roles

Accessible Version

GAO-23-105846

Report to Congressional Requesters

March 28, 2023

Why This Matters

From August 2021 to August 2022, U.S. consumers saw the largest annual percentage increase in food prices since the 1980s, according to the Bureau of Labor Statistics (BLS). Increases in food prices can pose a hardship for many in the U.S., particularly low-income consumers, whose food expenditures comprise an average of 30 percent of their total income, according to the U.S. Department of Agriculture (USDA).

Multiple factors along the food supply chain can affect the prices consumers see at grocery and other food stores—we refer to these prices as “retail food prices” throughout this report. Such stores generally represent the final segment of the food supply chain, which begins with production (e.g., farms) and includes processing (e.g., meat packers) and distribution (e.g., transporting food to stores). Several federal agencies have programmatic and regulatory responsibilities aimed at supporting the food supply chain.

We were asked to examine factors affecting retail food prices. This report provides information on retail food price trends from 2013 to 2022, factors that may affect retail food prices, and various roles the federal government may play in supporting the food supply chain. This report focuses on actions taken by the Departments of Agriculture, Commerce, Justice, Labor, and Transportation; the Environmental Protection Agency; the Federal Trade Commission; and the Food and Drug Administration.

Key Takeaways

- From 2013 to 2022, retail food prices in the U.S. generally increased by about 2 percent per year, on average. The greatest annual increase, from 2021 to 2022, was about 11 percent, according to BLS and USDA data.
- Many factors that affect the food supply chain can affect retail food prices. It is difficult to determine the individual effect of any one factor on retail food prices, according to USDA officials and experts we interviewed. Some of these factors (e.g., weather) have posed long-standing challenges for the food supply chain, while others (e.g., the COVID-19 pandemic and the Russia-Ukraine conflict) have had more recent effects. These factors can also contribute to increases in prices for global agricultural commodities (e.g., wheat, corn, and soybeans), which in turn can affect retail food prices, as USDA officials emphasized.
- Federal agencies may indirectly affect retail food prices, such as through their efforts to support the food supply chain. For example, selected federal agencies have taken some actions, such as offering regulatory relief and other flexibilities, to address supply chain disruptions caused by the COVID-19 pandemic and the Russia-Ukraine conflict. However, agencies do not have a direct role in controlling price increases, according to agency officials.

How did U.S. retail food prices change from 2013 to 2022?

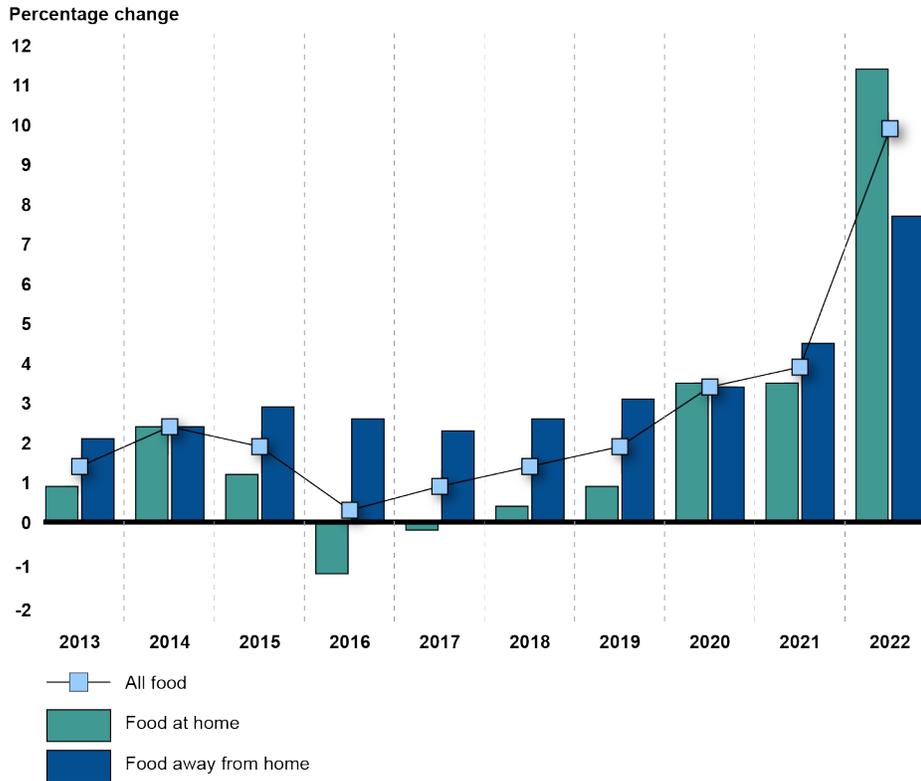
From 2013 through 2022, retail food prices in the U.S. generally increased by about 2 percent per year, on average, according to BLS and USDA data. Two years were the exception to this trend—in 2016 and 2017, prices decreased.¹ The greatest annual increase, 11 percent, occurred from 2021 to 2022.²

According to BLS and USDA, the extent to which individual consumers experience changing retail food prices can depend on (1) whether consumers purchase the food in a retail store or restaurant, (2) the types of food they purchase, and (3) where in the U.S. they purchase that food.

Retail vs. restaurant

From 2013 through 2022, prices of retail food (i.e., food at home) generally rose less per year than prices of restaurant food (i.e., food away from home)³ (see fig. 1). However, from 2021 to 2022, retail food prices increased by 11 percent, while restaurant food prices rose about 8 percent, according to BLS and USDA data.

Figure 1: Annual Percentage Change in the Consumer Price Index (CPI) for Retail and Restaurant Food Prices, 2013-2022



Source: GAO analysis of data from the U.S. Department of Agriculture and the Bureau of Labor Statistics (BLS). | GAO-23-105846

Accessible Data for Figure 1: Annual Percentage Change in the Consumer Price Index (CPI) for Retail and Restaurant Food Prices, 2013-2022

CPI_description	All food	Food away from home	Food at home
2013	1.4	2.1	0.9
2014	2.4	2.4	2.4
2015	1.9	2.9	1.2
2016	0.3	2.6	-1.3
2017	0.9	2.3	-0.2
2018	1.4	2.6	0.4
2019	1.9	3.1	0.9

CPI_description	All food	Food away from home	Food at home
2020	3.4	3.4	3.5
2021	3.9	4.5	3.5
2022	9.9	7.7	11.4

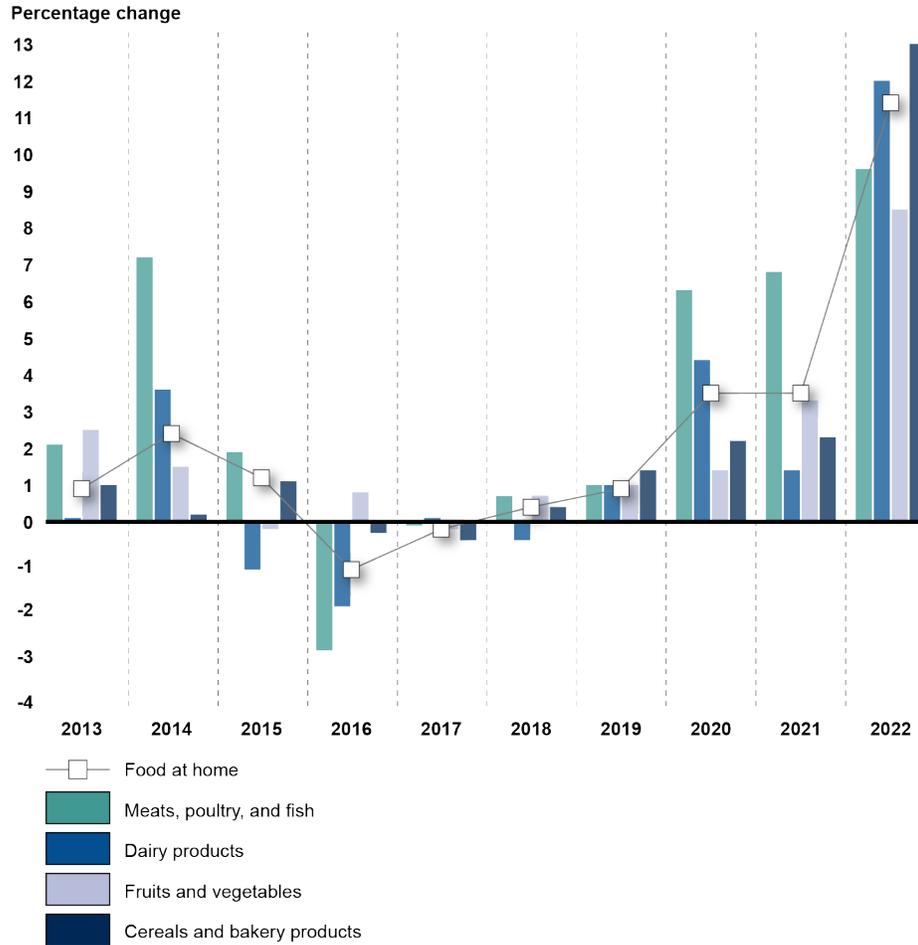
Note: The CPI is a statistical estimate of the average change over time in the prices consumers paid for certain goods. BLS selects these goods based on survey data on what families and individuals purchased at food stores. For “food at home,” the CPI includes all expenditures for food products purchased at grocery or other food stores. For “food away from home,” the CPI includes all meals purchased at restaurants and other establishments. “All food” includes all expenditures for food at and away from home. Because sampling errors for these estimates were not available, we did not determine whether specific index changes were statistically significant. However, we found these data sufficiently reliable for reporting changes over time for broad CPI categories such as those listed here. See “How GAO Did This Study” for more information.

Changes in restaurant food prices are mainly tied to changes in wages and other costs associated with food service, according to USDA. In contrast, changes in retail food prices may be linked to many factors along the food supply chain, as we discuss below.

Type of food

Retail food price changes can also depend on the type of food purchased, according to BLS and USDA data (see fig. 2). For example, from 2021 to 2022, prices for cereals and bakery products increased by about 13 percent, while fruits and vegetables increased by about 9 percent.

Figure 2: Annual Percentage Change in the Consumer Price Index (CPI) for Selected Food Categories, 2013-2022



Source: GAO analysis of data from the U.S. Department of Agriculture and the Bureau of Labor Statistics (BLS). | GAO-23-105846

Accessible Data for Figure 2: Annual Percentage Change in the Consumer Price Index (CPI) for Selected Food Categories, 2013-2022

CPI_description	Food at home	Meats poultry and fish	Dairy products	Fruits and vegetables	Cereals and bakery products
2013	0.9	2.1	0.1	2.5	1
2014	2.4	7.2	3.6	1.5	0.2
2015	1.2	1.9	-1.3	-0.2	1.1
2016	-1.3	-3.5	-2.3	0.8	-0.3
2017	-0.2	-0.1	0.1	-0.2	-0.5
2018	0.4	0.7	-0.5	0.7	0.4
2019	0.9	1	1	1	1.4
2020	3.5	6.3	4.4	1.4	2.2
2021	3.5	6.8	1.4	3.3	2.3
2022	11.4	9.6	12	8.5	13

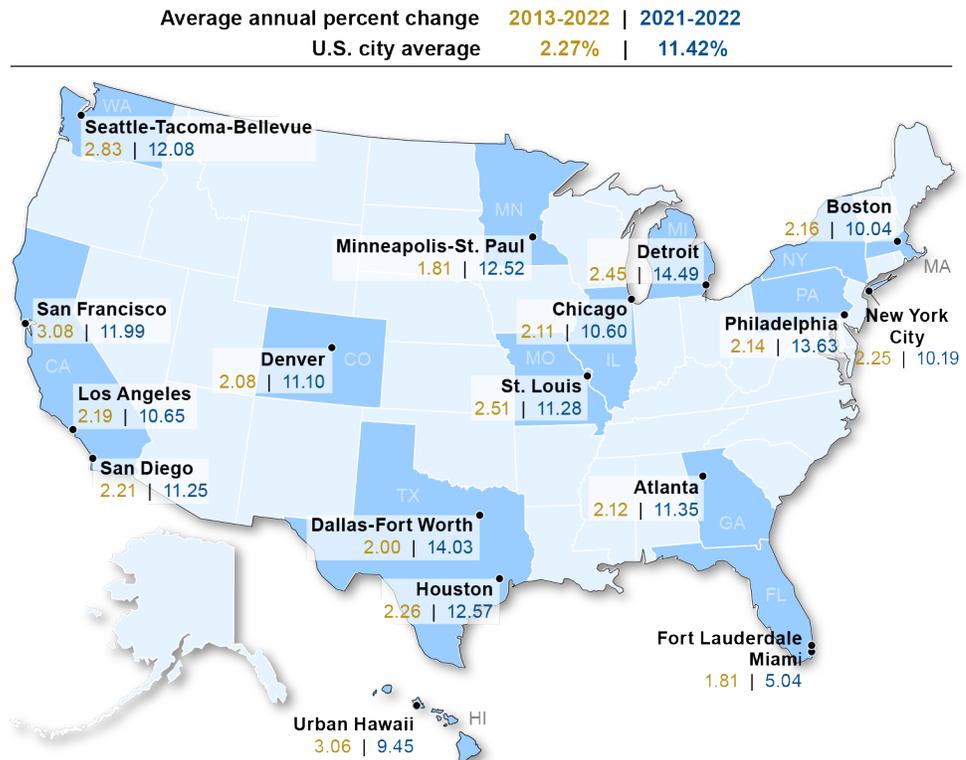
Note: The CPI is a statistical estimate of the average change over time in the prices paid by consumers for goods selected by BLS based on survey data on what families and individuals purchased at food stores. The graph shows the “food at home” CPI—food products purchased at grocery or other food stores—for selected categories with higher relative importance scores in 2022. BLS calculates the relative importance score based on the proportion of an average consumer’s budget spent on this category in a given year. Index changes over short periods, for individual goods and services or for local areas, may not reflect statistically significant differences. As a result, some estimated index changes between individual goods may be unreliable. However, we did not make such determinations about specific estimates because standard errors were not available. See “How GAO Did This Study” for more information.

Where food is purchased

Retail food price changes can also depend on locality, or where in the country the food is purchased. According to USDA data, from 2013 to 2022, the average retail food price increase ranged from a high of about 3.1 percent in urban Hawaii and San Francisco, California, to a low of 1.8 percent in the metropolitan areas of Miami-Fort Lauderdale, Florida, and Minneapolis-St. Paul, Minnesota (see fig. 3). In comparison, from 2021 to 2022, the highest annual increase in retail food prices (about 14.5 percent) occurred in Detroit, Michigan, and the lowest (about 5 percent) occurred in the Miami-Fort Lauderdale, Florida, metropolitan area.

Some of the variation among cities can be attributed to retailers passing on local cost increases in transportation and retail overhead expenses, such as labor and rent, to consumers, according to USDA.

Figure 3: Average Estimated Annual Percentage Increase in Retail Food Prices in Selected Major Metropolitan Areas, 2013-2022



Sources: GAO analysis of data from the U.S. Department of Agriculture (USDA) and the Bureau of Labor Statistics (BLS); Map Resources (map). | GAO-23-105846

Accessible Data for Figure 3: Average Estimated Annual Percentage Increase in Retail Food Prices in Selected Major Metropolitan Areas, 2013-2022

Metro area	2013-2022 Average Annual Percent Change	2021-2022 Annual Percent Change
Atlanta	2.12	11.35
Boston	2.16	10.04
Chicago	2.11	10.60
Dallas-Fort Worth	2.00	14.03
Denver	2.08	11.10
Detroit	2.45	14.49
Urban Hawaii	3.06	9.45
Houston	2.26	12.57
Los Angeles	2.19	10.65

Metro area	2013-2022 Average Annual Percent Change	2021-2022 Annual Percent Change
Miami-Fort Lauderdale	1.81	5.04
Minneapolis-St. Paul	1.81	12.52
New York City	2.25	10.19
Philadelphia	2.14	13.63
San Diego	2.21	11.25
San Francisco	3.08	11.99
Seattle-Tacoma-Bellevue	2.83	12.08
St. Louis	2.51	11.28
US City Average	2.27	11.42

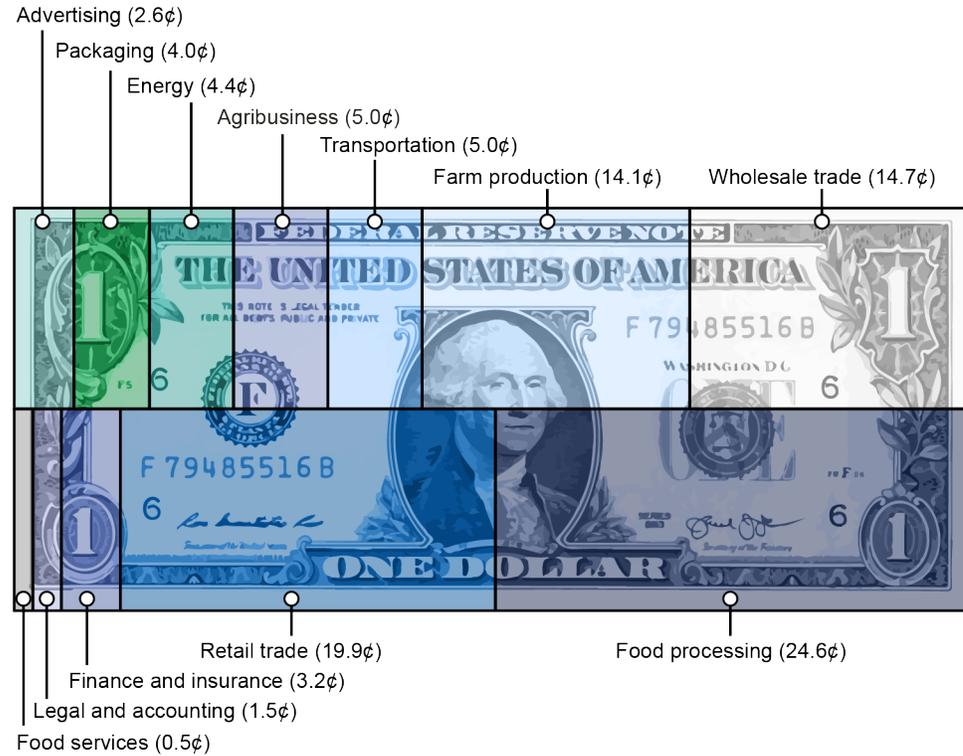
Note: The metro areas in this graphic are those included in USDA's May 23, 2022, article, "Retail food price inflation varies across U.S. metro areas." BLS defines a metro area as consisting of at least one urbanized area with a population of 50,000 or more. The "Urban Hawaii" area in this figure consists of Honolulu in the state of Hawaii. Index changes over short periods, for individual goods and services or for local areas, may not reflect statistically significant differences. As a result, some estimated index changes between local areas may be unreliable. However, we did not make such determinations about specific estimates because standard errors were not available. See "How GAO Did This Study" for more information.

What are the costs that contribute to retail food prices?

The costs that multiple industries incur to produce and move food along the food supply chain contribute to the overall price of food, including retail food, according to USDA. For example, food processors, manufacturers, and retailers incur costs to process or otherwise prepare raw agricultural commodities (e.g., wheat, peanuts, and beef) into food products for retail (e.g., bread, peanut butter, and hamburgers).

The costs that these industries incur account for a substantial portion of retail food prices, according to USDA.⁴ For example, food processing costs made up about 25 cents of every dollar a consumer spent on food at the grocery store in 2021 (see fig. 4). From 2012 to 2021, the various industries' share of that "food dollar" remained relatively constant and did not vary by more than a half cent annually for most industries.

Figure 4: USDA's Estimated Industry Cost Contributions to the Retail Price of Food, 2021



Sources: U.S. Department of Agriculture (USDA) analysis and vitaliyo/stock.adobe.com. | GAO-23-105846

Accessible Data for Figure 4: USDA's Estimated Industry Cost Contributions to the Retail Price of Food, 2021

Industry	2021
Wholesale trade	14.7
Farm production	14.1
Transportation	5.0
Agribusiness	5.0
Energy	4.4
Packaging	4.0
Advertising	2.6
Subtotal	49.8
Food processing	24.6
Retail trade	19.9
Finance and insurance	3.2
Legal and accounting	1.5

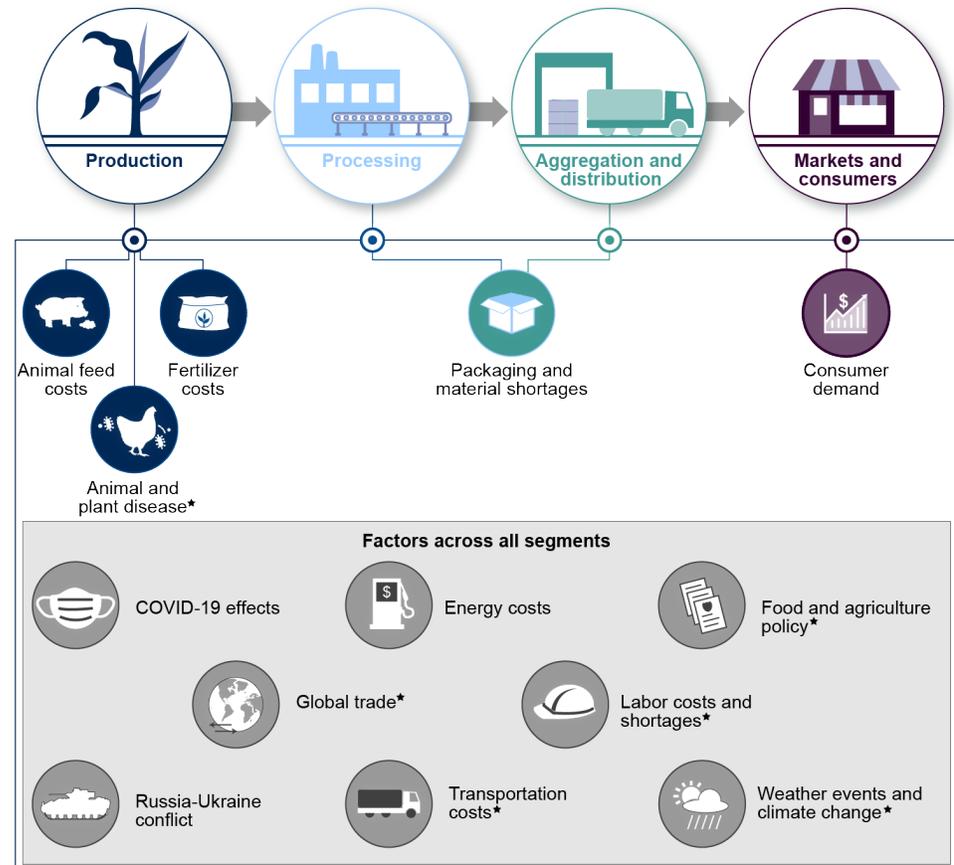
Industry	2021
Food services	0.5
Subtotal	50
Total	99.8

Note: The concept of representing a U.S. consumer's \$1 expenditure on food is featured as part of USDA's November 2022 Food Dollar Series. The Food Dollar Series examines industries' contributions to the market value of food by delineating the costs of each industry. USDA groups establishments into industry groups depending on the type of product or service they provide. For example, the "agribusiness" group refers to establishments producing farm inputs such as seed and fertilizers; "food processing" includes establishments within the food manufacturing industries; and "food services" includes restaurants and other dining establishments whose revenues, in part, support the food supply chain for retail food. The values listed above sum to 99.8 cents due to rounding error, according to USDA officials. When calculating the industry share, USDA rounds to one-tenth of a cent.

What contributed to recent changes in retail food prices?

Several factors that affect the food supply chain may have contributed to recent changes in retail food prices, according to USDA documents we reviewed and agency officials and experts we interviewed. Figure 5 shows these factors and the affected segments of the supply chain; some factors can affect more than one segment.

Figure 5: Factors That Can Affect the Food Supply Chain and Contribute to Retail Food Price Changes



* Long-term factors

Source: GAO analysis of information from the U.S. Department of Agriculture and interviews with experts. | GAO-23-105846

Some factors have posed long-standing challenges within the food supply chain, while others occurred more recently, according to experts and USDA officials we interviewed. Long-term factors include global trade issues (e.g., trade restrictions); weather events and climate change; and animal and plant disease, generally. More recent factors include the COVID-19 pandemic, increased consumer demand, droughts in 2021, the Highly Pathogenic Avian Influenza virus outbreak in 2022, and the Russia-Ukraine conflict (see fig. 6).

Commodity prices can also affect retail food prices, according to USDA. A number of the above factors contributed to increases in prices for agricultural commodities such as wheat, corn, and soybeans, which were already experiencing global shortages, as USDA emphasized in its analyses and discussions with us.⁵

Because factors occur simultaneously and across multiple segments of the food supply chain, it is difficult to isolate and determine the effect of any single factor on retail food prices, according to USDA and experts. While a particular factor may affect one segment of the food supply chain, factors usually affect multiple segments, according to experts. For example, higher animal feed costs predominantly affect the production segment of the supply chain. In contrast, higher energy costs (e.g., fossil fuels and renewables) can affect entities that use energy throughout the food supply chain, according to USDA.

Figure 6: Potential Effects of Selected Factors on Food Supply Chain and Retail Food Prices



Russia-Ukraine conflict

The Russia-Ukraine conflict affected the global supply of agricultural commodities. Russia and Ukraine are significant producers and exporters of several commodities, including wheat, corn, sunflower oil, and fertilizer. The conflict caused reductions in global wheat supplies that, coupled with already reduced wheat supplies in the U.S. due to drought, led to increases in U.S. wheat prices, according to USDA officials.



Effects of COVID-19 pandemic

The COVID-19 pandemic caused disruptions across multiple segments of the food supply chain that may have affected retail food prices. For example, the pandemic reduced the availability of labor, such as truck drivers, which contributed to transportation bottlenecks. The pandemic also led to slowdowns in meat processing as workers became sick and plants shut down, according to experts we interviewed.



Animal and plant disease

Animal and plant disease outbreaks generally affect the production segment of the food supply chain and can be episodic or long-running.

- The Highly Pathogenic Avian Influenza virus outbreak in 2022 and 2023 reduced the supply of poultry and eggs when millions of turkeys and laying hens were euthanized after exposure to the virus, according to USDA. Such losses can increase the price of poultry products, according to experts we interviewed. According to USDA, December 2022 wholesale egg prices were the highest ever recorded—averaging about \$5 per dozen, over 200 percent higher than December 2021.
- Citrus greening—an insect-borne plant disease that impairs a tree’s ability to produce fruit and eventually kills it—has reduced citrus yields in multiple states since it reached the U.S. in 2005. Increased production costs and decreased supply could have led to higher prices for consumers, according to USDA and an expert we interviewed.



Sources: GAO analysis of information from the U.S. Department of Agriculture (USDA) and interviews with experts. Corona Borealis/Kawee/Tertman/Ellen/stock.adobe.com (photos). | GAO-23-105846

Accessible Data for Figure 6: Potential Effects of Selected Factors on Food Supply Chain and Retail Food Prices

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Retailers sometimes inform consumers about specific supply chain disruptions related to increases in certain retail food prices in their stores (see fig. 7).

Figure 7: Example of Grocery Store Signage Explaining Increases in Chicken Prices



In 2022, a retailer presented customers at a food store with signage explaining that increases in the prices of chicken products were due to supply limitations and increased costs from suppliers.

Source: GAO. | GAO-23-105846

Accessible Data for Figure 7: Example of Grocery Store Signage Explaining Increases in Chicken Prices

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According to experts we interviewed, agency officials, and agency documentation, it is difficult to determine the effect of any one factor on retail food prices for several reasons:

- **Factors can occur simultaneously.** Various factors can overlap and affect industries operating across multiple segments of the food supply chain. For example, USDA reported in May 2021 that domestic meatpackers could not process a market-ready supply of beef in a timely manner because of labor disruptions they had experienced since the COVID-19 pandemic began, as well as interruptions in beef production due to extreme weather.⁶
- **Processing involves more steps along the food supply chain.** Food products that require more processing typically undergo more steps along the food supply chain. As a result, determining how various factors and changes in production costs may have affected the retail price of processed foods (e.g., a loaf of bread) is more challenging than for less-processed items (e.g., raw fruits and vegetables), according to USDA officials. When more factors are involved, it is more difficult to identify the extent to which any one factor affects the retail price of a given product, according to experts. Furthermore, for highly processed foods, costs may increase in one area of the food supply chain but decrease in others, resulting in little to no changes to the overall price consumers pay in grocery stores for a given product. For example, when the cost to produce wheat goes up but the cost to salt a loaf of bread goes down, the retail price of the bread itself may remain the same.
- **Retail pricing strategies may mask increased costs.** Changes in retail food prices may also depend on the extent to which various industries along the food supply chain choose to pass along higher costs to customers, according to USDA and a 2022 report by the Congressional Research Service.⁷ For example, in 2017, flooding led to smaller lettuce supplies, and producers received higher prices for their lettuce (the monthly average price rose 12 cents). However, the average retail price of lettuce decreased by 3 cents, according to USDA. It is unclear why the retail price decreased because retailers' pricing strategies and other key industry data are often proprietary—thus, not available to the public or federal agencies such as USDA, according to experts.

USDA's Economic Research Service (ERS) is researching how food supply chain disruptions may affect commodity and retail food prices, according to USDA officials.⁸

How do federal agencies support the food supply chain?

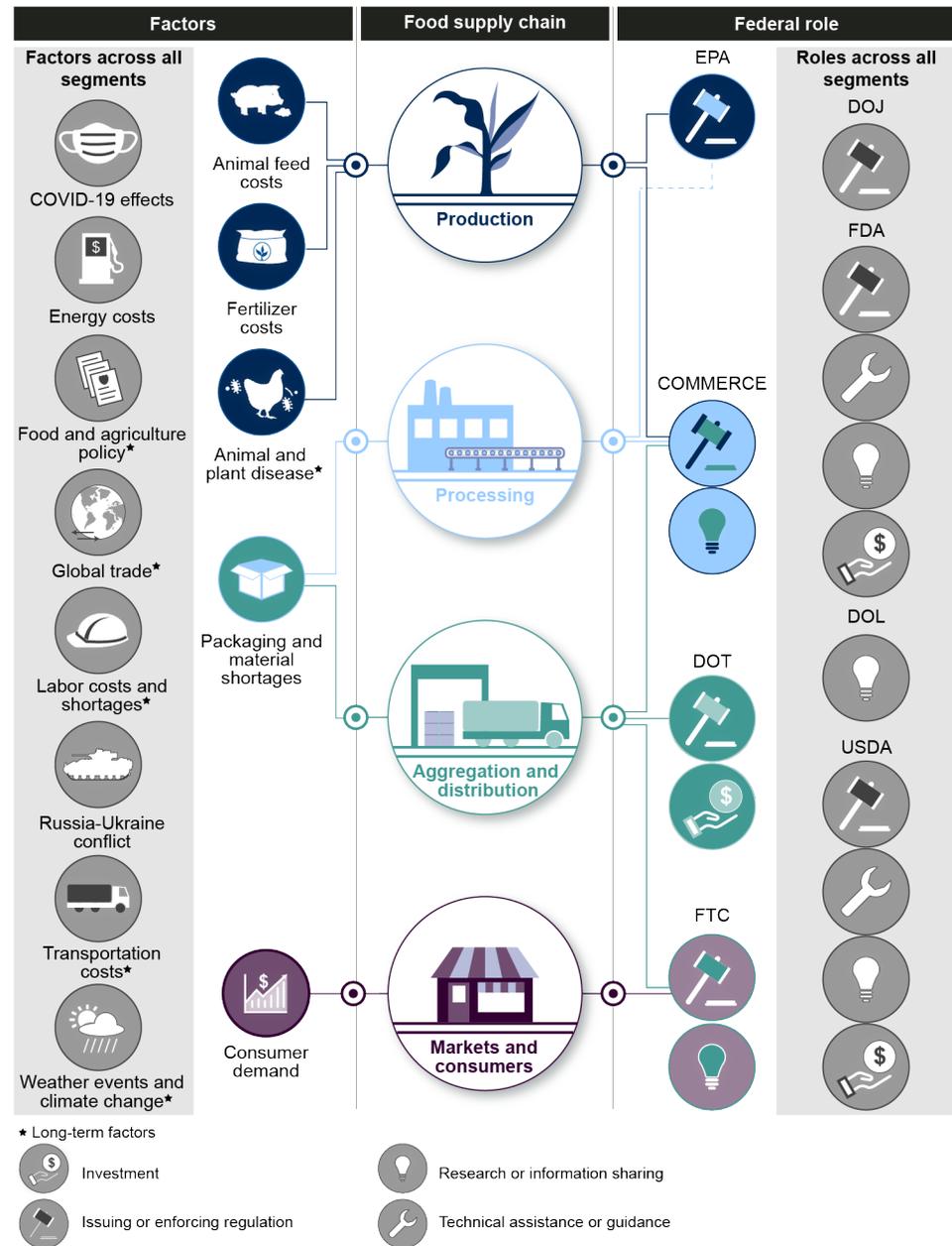
Federal agencies have a variety of roles in supporting the food supply chain (see fig. 8 and table 1). Maintaining a resilient food supply chain helps keep retail food prices affordable, according to USDA officials. Consequently, the roles that federal agencies play in supporting the food supply chain may indirectly affect retail food prices. However, agencies do not have a direct role in controlling retail food price increases, according to agency officials.

Federal agencies' roles generally fall into four categories:

-  **Investing** in the food supply chain, such as by providing grants and loans to food industries
-  Providing **technical assistance and guidance** to entities in the food supply chain, such as farmers and food processors
-  Conducting **research and sharing information** with stakeholders involved in the food supply chain, such as farmers and agricultural businesses
-  **Setting policy and issuing and enforcing regulations** (e.g., regulations intended to ensure the safety of the food supply and maintain market competition)

Some factors, such as transportation and packaging, are part of the food supply chain and subject to federal oversight. For example, the Department of Transportation (DOT) regulates the movement of agricultural goods, and the Food and Drug Administration (FDA) regulates how foods are processed and packaged. DOT, FDA, and other agencies can take actions when such factors disrupt the food supply chain.

Figure 8: Selected Federal Agencies' Roles in the Food Supply Chain



Source: GAO analysis of information from interviews with experts and the Departments of Agriculture (USDA), Commerce, Justice (DOJ), Labor (DOL), and Transportation (DOT); the Environmental Protection Agency (EPA); the Federal Trade Commission (FTC); and the Food and Drug Administration (FDA). | GAO-23-105846

Note: Segments of the supply chain include production, processing, aggregation/distribution, and markets/consumers, according to USDA. Some agencies, such as FDA, USDA, and DOL, have roles across all segments of the food supply chain. This figure does not include all federal agencies that have a role in the food supply chain.

Table 1: Examples of Selected Federal Agencies' Roles in Supporting the Food Supply Chain

Department/agency	Role	Segment(s) of food supply chain supported
U.S. Department of Agriculture (USDA)	<p>USDA's roles include</p> <ul style="list-style-type: none"> • providing economic and market information to help guide farm and business enterprises; • conducting agricultural and social science research to develop new technologies and products (e.g., plant protection materials, fertilizers, plant breeds, and seeds), as well as environmental, drought, climate, and rural supply chains research; • investing in the food supply chain through grants and loans; • supporting farm operations through income assistance, crop insurance, and disaster relief; • setting rules and regulations that determine the price of commodities through farm assistance programs (e.g., minimum prices paid to farmers for milk); • ensuring the safety of meat and poultry products through inspections of domestic products and equivalence determinations for imported agricultural products (i.e., determining whether a country's food safety inspection system achieves an appropriate level of public health protection as applied domestically), as well as fair competition in commodity markets; and • providing technical assistance and training to the public and the supply chain workforce. 	<ul style="list-style-type: none"> • Production • Processing • Aggregation and distribution • Markets and consumers
Food and Drug Administration (FDA)	<p>FDA is responsible for overseeing the safety of about 80 percent of the nation's human food supply and the regulated animal food supply, including how most food is processed, packaged, and labeled. FDA conducts research and food safety inspections in farms, food processing plants, and food distribution centers.</p> <p>While the markets/consumers segment of the supply chain is typically regulated at the state and local level, FDA publishes guidance for state, local, tribal, and territorial governments.</p>	<ul style="list-style-type: none"> • Production • Processing • Aggregation and distribution • Markets and consumers

Department/agency	Role	Segment(s) of food supply chain supported
Department of Justice (DOJ) and Federal Trade Commission (FTC)	<p>DOJ and FTC share responsibility for enforcing antitrust laws, which prohibit certain practices in the food industry that can contribute to higher retail food prices.^a</p> <ul style="list-style-type: none"> DOJ conducts investigations throughout all segments of the food supply chain to address price increases linked to anticompetitive behavior. According to DOJ, the department has taken enforcement actions to stop such practices—e.g., mergers or anticompetitive business practices—in the poultry, beef, milk, sugar, and other industries. FTC investigates mergers and anticompetitive conduct in food products, distribution and retail grocery stores. The agency can take legal action to block an anticompetitive merger from going forward or to stop anticompetitive practices. FTC also undertakes studies of competition, including studies of markets affecting food prices. 	<ul style="list-style-type: none"> Production Processing Aggregation and distribution Markets and consumers
Department of Labor (DOL)	<p>DOL's Bureau of Labor Statistics (BLS) collects data related to various sectors of the economy, including retail food prices, labor market activity, working conditions, and productivity. These data help support public and private decision-making, according to BLS officials.</p> <p>DOL also administers and enforces laws enacted to protect the safety and health of workers in the U.S. For example, DOL's Occupational Safety and Health Administration sets and enforces standards to ensure safe working conditions for workers in the meat and poultry processing industries, among others.</p>	<ul style="list-style-type: none"> Production Processing Aggregation and distribution Markets and consumers
Environmental Protection Agency (EPA)	<p>EPA's Office of Pesticide Programs regulates the manufacture and use of all pesticides (including insecticides, herbicides, rodenticides, disinfectants, and sanitizers) and establishes maximum levels for pesticide residues in food.</p>	<ul style="list-style-type: none"> Production Processing
Department of Commerce	<p>Commerce's National Oceanic and Atmospheric Administration inspects seafood, primarily in the production and processing segments of the supply chain.</p> <p>Commerce's International Trade Administration works with the transportation, logistics, distribution, and supply chain services sectors to ensure the efficient movement of goods into, through, and out of the U.S. by addressing policy and regulatory issues and providing data and market information.</p>	<ul style="list-style-type: none"> Production Processing Aggregation and distribution

Department/agency	Role	Segment(s) of food supply chain supported
Department of Transportation (DOT)	DOT issues safety regulations that affect transportation companies moving agricultural goods. DOT also invests in infrastructure projects (both through grants and by administering funding programs for state highway agencies) that can improve existing routes or provide access for agricultural shippers and carriers.	<ul style="list-style-type: none"> Aggregation and distribution

Legend:  Production  Processing  Aggregation and distribution  Markets and consumers

Sources: GAO analysis of documents and interviews with officials from Commerce, DOL, DOJ, FTC, DOT, EPA, FDA, and USDA. GAO (icons). | GAO-23-105846

Note: This table does not include all federal agencies that play a role in the food supply chain. The food supply chain is comprised of multiple segments that include production, processing, distribution/aggregation, and markets/consumers, according to USDA.

^aSherman Act. July 2, 1890, ch. 647, 26 Stat. 209 (codified as amended at 15 U.S.C. §§ 1-7); Clayton Act, Oct. 15, 1914, ch. 323, 38 Stat. 730) (codified as amended at 15 U.S.C. §§ 12-27).

In addition to supporting the food supply chain, federal agencies have roles in supporting the economy and the social safety net. For example, the Federal Reserve System helps maintain stable prices through monetary policy, and USDA's Food and Nutrition Service helps ensure that low-income families have access to nutritious, affordable food through federally funded nutrition assistance programs.

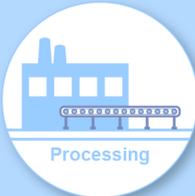
How have federal agencies addressed recent retail food price increases and supply chain disruptions?

The federal agencies we reviewed took a range of actions in response to the retail food price increases and supply chain disruptions that occurred in 2021 and 2022.

Agency officials told us about various actions their agencies took that were intended to address disruptions to the food supply chain, such as those caused by the COVID-19 pandemic and the Russia-Ukraine conflict (see fig. 9). These actions could also have mitigated some factors that contributed to food price increases, according to agency officials.

For example, FDA offered regulatory relief and other flexibilities that allowed producers to divert food made for institutional consumption (e.g., in restaurants) to grocery stores.⁹ This action was intended to avert shortages that could have increased retail food prices during the COVID-19 pandemic, according to FDA officials.

Figure 9: Examples of Actions Federal Agencies Took in Response to Food Supply Chain Disruptions and Food Price Increases in 2021 and 2022

 <p>Production</p>	<ul style="list-style-type: none"> • USDA and DOJ launched an online complaint portal for farmers, ranchers, and other agricultural producers to report suspected violations of federal anticompetition law. • In response to price increases for fertilizer, USDA provided funding to agricultural producers to help expand the manufacturing and processing of fertilizer and nutrient alternatives. In addition, USDA expanded double crop (raising two crops on the same land in 1 year) insurance opportunities in nearly 1,500 counties to help increase domestic food production and lower food costs amid the challenges of the COVID-19 pandemic, supply chain disruptions, and the Russia-Ukraine conflict. • EPA provided regulatory flexibilities for registrants of certain pesticide products to alleviate supply chain issues that the pesticide industry faced.
 <p>Processing</p>	<ul style="list-style-type: none"> • EPA provided temporary regulatory flexibilities related to the use of certain antimicrobial products that food processors relied on to sanitize surfaces in food processing establishments to ensure such products were available to respond to the COVID-19 pandemic. • FDA allowed producers to make minor changes to ingredients without updating labeling when ingredient shortages required the use of substitutes. According to FDA officials, this likely prevented companies from passing the higher costs for labeling along to consumers. • USDA provided grant funding to help meat and poultry processors expand their operations, such as by building new facilities, installing equipment, and supporting workforce recruitment.
 <p>Aggregation and distribution</p>	<ul style="list-style-type: none"> • DOT worked with USDA to reduce increased congestion at U.S. agricultural export terminals due to COVID-19 supply chain disruptions that left fewer shipping containers available at shipping ports. The departments established temporary “pop-up” terminals to expedite exports and allow agricultural suppliers to more quickly load containers and move cargo out of ports. • In response to an imbalance of availability between goods processed for away-from-home consumption (e.g., restaurants) versus at-home consumption, FDA used regulatory flexibilities to allow producers to divert food meant for restaurant consumption to grocery stores to ensure food availability for consumers.
 <p>Markets and consumers</p>	<ul style="list-style-type: none"> • FTC launched an inquiry into supply chain disruptions and ordered nine large retailers, wholesalers, and consumer good suppliers to provide detailed information that will help FTC understand the causes of supply chain disruptions and rising prices. • Supply chain disruptions, such as supply shortages and price fluctuations, made it difficult for schools to provide meals to students that met nutrition requirements. In response, USDA provided funding for school districts to purchase food products. USDA also increased Supplemental Nutrition Assistance Program benefits to ensure vulnerable populations had access to food and, through the Farmers to Families Food Box Program, purchased food from producers and delivered them to recipient organizations (e.g., food banks) to provide food to those in need, help contractors retain jobs, and support producers.

Source: GAO analysis of information from the U.S. Departments of Agriculture (USDA) and Transportation (DOT); Environmental Protection Agency (EPA); Federal Trade Commission (FTC); and the Food and Drug Administration (FDA). | GAO-23-105846

Accessible Data for Figure 9: Examples of Actions Federal Agencies Took in Response to Food Supply Chain Disruptions and Food Price Increases in 2021 and 2022

Food Supply Chain Segment	Action Taken
Production	<p>USDA and DOJ launched an online complaint portal for farmers, ranchers, and other agricultural producers to report suspected violations of federal anticompetition law.</p> <p>In response to price increases for fertilizer, USDA provided funding to agricultural producers to help expand the manufacturing and processing of fertilizer and nutrient alternatives. In addition, USDA expanded double crop (raising two crops on the same land in 1 year) insurance opportunities in nearly 1,500 counties to help increase domestic food production and lower food costs amid the challenges of the COVID-19 pandemic, supply chain disruptions, and the Russia-Ukraine conflict.</p> <p>EPA provided regulatory flexibilities for registrants of certain pesticide products to alleviate supply chain issues that the pesticide industry faced.</p>
Processing	<p>EPA provided temporary regulatory flexibilities related to the use of certain antimicrobial products that food processors relied on to sanitize surfaces in food processing establishments to ensure such products were available to respond to the COVID-19 pandemic.</p> <p>FDA allowed producers to make minor changes to ingredients without updating labeling when ingredient shortages required the use of substitutes. According to FDA officials, this likely prevented companies from passing the higher costs for labeling along to consumers.</p> <p>USDA provided grant funding to help meat and poultry processors expand their operations, such as by building new facilities, installing equipment, and supporting workforce recruitment</p>
Aggregation/distribution	<p>DOT worked with USDA to reduce increased congestion at U.S. agricultural export terminals due to COVID-19 supply chain disruptions that left fewer shipping containers available at shipping ports. The departments established temporary “pop-up” terminals to expedite exports and allow agricultural suppliers to more quickly load containers and move cargo out of ports.</p> <p>In response to an imbalance of availability between goods processed for away-from-home consumption (e.g., restaurants) versus at-home consumption, FDA used regulatory flexibilities to allow producers to divert food meant for restaurant consumption to grocery stores to ensure food availability for consumers.</p>
Markets/consumers	<p>FTC launched an inquiry into supply chain disruptions and ordered nine large retailers, wholesalers, and consumer good suppliers to provide detailed information that will help FTC understand the causes of supply chain disruptions and rising prices.</p> <p>Supply chain disruptions, such as supply shortages and price fluctuations, made it difficult for schools to provide meals to students that met nutrition requirements. In response, USDA provided funding for school districts to purchase food products. USDA also increased Supplemental Nutrition Assistance Program benefits to ensure vulnerable populations had access to food and, through the Farmers to Families Food Box Program, purchased food from producers and delivered them to recipient organizations (e.g., food banks) to provide food to those in need, help contractors retain jobs, and support producers.</p>

Note: Federal agency officials reported the actions described in this figure to address food supply chain disruptions. We did not evaluate the effects of these actions.

Agency Comments

We provided a draft of this report to USDA, Commerce, DOJ, DOL, DOT, EPA, FDA, and FTC. USDA said that it generally agrees with the findings. Commerce, DOJ, DOT, and EPA did not have comments. In addition, USDA, DOL, FTC, and FDA provided technical comments, which we incorporated as appropriate.

How GAO Did This Study

The focus of this report is retail food. We use the term “retail food prices” to refer to prices for food purchased at grocery and other food stores rather than other types of prices, such as for agricultural commodities. The data we present on retail food prices are the BLS data for “food at home.”

Below, we describe what we did to collect and analyze information in each area we cover in this report.

Describe changes over the past decade in retail food prices in the U.S.

We summarized data on retail food prices for 2013 through 2022 from USDA and BLS.¹⁰ We found the data sufficiently reliable for describing changes in retail food prices over time at broad level categories at the national level.¹¹

However, BLS cautions data users when making inferences about index changes over relatively short periods, for individual goods and services, or for local areas. In these cases, inferences about index changes may be unreliable due to the standard errors being on the same order of magnitude as the estimate themselves. However, we did not make such determinations about specific estimates because standard errors were not available.¹²

Identify factors that can affect retail food prices

We analyzed academic literature, reviewed USDA documents, and obtained information from agency officials and experts using semistructured interviews. Topics discussed include key factors throughout the supply chain that affected retail food prices, how experts identify and measure their effects, and what challenges exist to identifying and measuring factors’ effects on retail food prices.

We identified an initial list of experts on these topics through a background literature review and a targeted internet search.¹³ We interviewed from this list five experts, selected to capture a range of types of expertise (e.g., academic, trade association, think tank) and based on the relevance of their publications and other online materials to our discussion topics of interest.

We also asked interviewees to recommend additional contacts with diverse perspectives for us to interview. From this list, we selected three who were most frequently recommended. We interviewed five academic experts, one think tank, and two knowledgeable stakeholders (trade associations).

We interviewed agency officials from USDA’s Agricultural Marketing Service, ERS, and the Animal and Plant Health Inspection Service. Because this is a nongeneralizable sample, the results of these interviews do not represent the views of all agency officials, stakeholders, or experts involved in, or with an interest in, retail food prices. However, these results provide a range of perspectives on this topic.

Describe the roles of federal agencies in supporting the food supply chain

We obtained information from the agency officials and experts described above using semistructured interviews and question sets. Topics discussed include the direct and indirect roles of federal agencies with regard to retail food prices and actions the federal government took to address recent changes in retail food prices.

We interviewed USDA and FDA officials and obtained written responses from Commerce, DOJ, DOL, DOT, EPA, and FTC about their roles in addressing changes in retail food prices, roles in the food supply chain, and actions they took in response to changes in retail food prices and disruptions to the supply chain that occurred from January 2021 through September 2022. We followed up with agencies for clarification, as needed, beyond September 2022.

We selected these agencies after identifying them as having roles in the food supply chain according to our review of USDA’s *Agri-Food Supply Chain Assessment* report, interviews with experts, and consultations with GAO stakeholders.¹⁴ This selection does not include all federal agencies that may have a role in the food supply chain. Our purpose was to provide illustrative examples of agencies with the most predominant roles in the food supply chain.

We conducted this performance audit from February 2022 to March 2023 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

List of Requesters

The Honorable Dusty Johnson
Chairman
Subcommittee on Commodity Markets, Digital Assets, and Rural Development
Committee on Agriculture
House of Representatives

The Honorable Adrian Smith
House of Representatives

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Source: GAO (icons).



Endnotes

¹USDA attributes these exceptions to several factors, including a significant increase in inventory at the farm level. See Annemarie Kuhns and Abigail M. Okrent, *Factors Impacting Grocery Store Deflation: A Closer Look at Prices in 2016 and 2017*, EB-28 (U.S. Department of Agriculture, Economic Research Service: 2019).

²USDA, in its 2023 Food Price Outlook, reported that it expects food prices to grow more slowly in 2023 than in 2022 but still at above historical average rates.

³According to BLS, “food at home” refers to food expenditures at grocery stores or other food stores, and “food away from home” refers to food from vendors classified as fast food, takeout, delivery, concession stand, buffet and cafeteria, full-service restaurants, vending machines, and mobile vendors. For more information, see: <https://www.bls.gov/bls/glossary.htm>.

⁴U.S. Department of Agriculture, “Price Spreads from Farm to Consumer” (June 28, 2022).

⁵USDA publishes data and analyses on a range of agricultural commodities, such as *The Ukraine Conflict and Other Factors Contributing to High Commodity Prices and Food Insecurity* (Apr. 6, 2022).

⁶Executive Order 13917 issued in April 2020 identified meat and poultry in the food supply chain as essential to the national defense and underscored the importance of continued operation of the processing plants.

⁷U.S. Department of Agriculture, “Food Price Outlook Documentation” (Oct. 11, 2022); and Congressional Research Service, *U.S. Food Price Inflation and Agriculture Policy*, IN11945 (June 3, 2022).

⁸USDA has published research papers on the effects of the COVID-19 pandemic in some food supply chains, such as *COVID-19 Working Paper: Meatpacking Working Conditions and the Spread of COVID-19* (September 2021); and *COVID-19 Working Paper: COVID-19 and the U.S. Meat and Poultry Supply Chains* (February 2022).

⁹We have previously reported on federal use of regulatory flexibilities in response to COVID-19. See GAO, *COVID-19: Agencies Increased Use of Some Regulatory Flexibilities and Are Taking Steps to Assess Them*, GAO-22-105047 (Washington, D.C., June 23, 2022).

¹⁰Consumer index price data are available at <https://www.bls.gov/cpi/data.htm> and <https://www.ers.usda.gov/data-products/food-price-outlook/>.

¹¹Typically we use a measure of uncertainty in survey data to determine whether changes in estimates over time or between estimates are statistically significant. BLS does not publish such uncertainty estimates for the 12-month percent change of the annual average, which are the data reported by USDA and those used in this report. However, our analysis showed that the reliability of these data is generally very high; the CPI survey is a Principal Federal Economic Indicator designed to generate reliable national and Census division estimates for broad-level categories.

¹²For more information on variance estimates for the CPI, please see <https://www.bls.gov/cpi/tables/variance-estimates/home.htm>.

¹³Search terms included retail food, food-at-home, grocery, consumer retail, consumer grocery, and consumer food-at-home prices in combination with organization, group, and association.

¹⁴U.S. Department of Agriculture, *USDA Agri-Food Supply Chain Assessment: Program and Policy Options for Strengthening Resilience* (February 2022).